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DISLOCATION OF THE FEMUR ON THE DORSUM ILII. REDUCIBLE WITHOUT PULLEYS, OR ANY OTHER MECHANICAL POWER.

[THE following essay, containing important suggestions respecting the treatment of a form of dislocation which is usually attended with much difficulty and danger, was read before the Monroe Co. (N. Y.) Medical Society in May last, by W. W. Reid, M.D., of Rochester. It is copied by his request and on account of the importance of the subject of which it treats, and the extensive experience of Dr. R., from the August number of the Buffalo Medical Journal. The value of the novel method proposed must be tested by additional trials by himself and others.—ED.]

GENTLEMEN,—I propose to show that dislocation of the femur on the dorsum ilii, may be reduced without pulleys, without Jarvis's adjuster, without Fanhestock's twisted ropes, without an assistant, in less time and with far less pain, than by any mechanical means whatever, simply by the hand and strength of the operator alone.

The announcement of a proposition so novel, so ultra, and contradictory to the teachings of all standard writers on surgery for the last hundred years, exposes me, I am aware, to the sneers of some, to the pity of others, and to the charge of rashness by all, and requires that I make good my statement by undoubted and substantial proof.

The subject matter of this paper has been written, but withheld from the public and profession, several years, principally for two reasons:—

First.—The theory and practice here recommended are so diametrically opposed to all our highest surgical authorities, whether among the living or the dead, that I have shrunk from the obloquy and opprobrium that are apt to attach to an innovator upon long-established opinions, dogmas and practices, especially when held and taught by men in our profession of profouud science and practical skill.

Second.—I had to wait some four or five years for an opportunity to put to the test this mode of reducing a luxation of the hip-joint, before a case presented itself in my own practice. In the spring of 1844, the first opportunity offered, but as "one swallow does not make a summer," I was still unwilling to venture before the profession, although so far as one case could establish a principle, this one did so, as we shall see directly. During the past year (1849), two other cases have fallen into

my hands, and have rendered what was before certain to my own mind, "doubly sure."

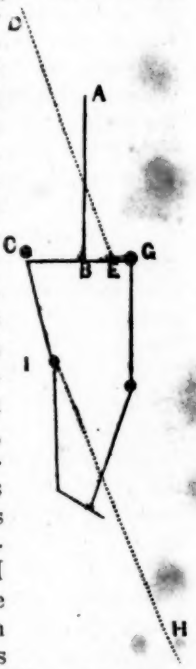
As the facts and views here adduced call in question, and entirely controvert several important dogmas of physiology and surgery, taught as *truths*, by the Bells, Sir A. Cooper, S. Cooper, Fergusson, Druit, Liston, Chelius, South, Physick, Wistar, Dorsey, Mott, Warren, Gibson, and other eminent teachers of surgery, I may be pardoned if I briefly sketch the mental process, the observations and experiments by which I arrived at conclusions so diverse from the teachings and experience of such eminent surgeons.

During the years 1826, 7 and 8, while a student of medicine and surgery, it was my fortune to witness several cases of luxation of the head and fracture of the neck of the femur. We had at that time in our embryo city of Rochester, of ten thousand inhabitants, a corps of some six surgeons and physicians of as great efficiency and skill as any town of its size could boast. When so important an operation as the reduction of the hip-joint was to be performed, several, if not all, of these gentlemen, usually met together, with their students, and among them myself.

Having witnessed, on several occasions, the *inquisitorial torture* inflicted upon the unfortunate patients—their screeching—their piteous begging to be released—the slipping of bandages—the yielding and readjusting of fixtures—the delay—the duration of the operation, sometimes two or three hours—the exhaustion of the patient, and after all, in some instances, a failure, and the patient a cripple for life, a profound horror and prejudice against the use of pulleys seized me (Jarvis's Adjuster had not then been invented), and I could not avoid the conviction that so great power was unnecessary, and that it must be misapplied. Preceptors, professors and authors, were interrogated—the unanimous reply to all my queries was—"to overcome the contraction of the great muscles, which drew up and shortened the limb, viz., the glutei, triceps, femoris, the iliacus internus and psoas magnus." But do not these same powerful muscles contract and shorten the limb when there is fracture in the neck of the femur? Yes. And you tell me that one of the diagnostic symptoms between fracture and dislocation on the dorsum is, that in fracture the limb can be easily extended to its normal length, by the strength of one man, while in luxation it cannot. Now why do these great muscles require so much more force to overcome them in one case than in the other? To this, I could get no satisfactory nor even plausible reply.

The next reflection that arose, was, perhaps the capsular ligament might be merely rent by a slit, so as to permit the escape of the head of the bone, and thus grasp it around the neck, and consequently, when forcible extension was made on the limb, the ligament must be torn up to admit the return of the head to the acetabulum. But Sir A. Cooper says no; for he had dissected two or three dislocated hip-joints, and always found the capsular ligament completely torn up, so that it could offer no resistance to the returning bone. This, however, is but negative proof, and might not apply to all other cases that have occurred

the world over, and which he did not dissect—nor does it appear but that in those he did dissect, the ligaments had been torn up by the application of pulleys, and not by the force that dislocated the bone. It is not doubted or denied, that in some instances the ligaments are completely broken up, by the dislocation; but admitting that Sir A. Cooper and his followers are right, then there must still be a reason for the difference of power required between a luxation and a fracture to extend the limb to its normal length. It may be in the impracticability of the instrument; for it is evident, on the slightest inspection, that the action of the pulley is *indirect*, most awkward, and unscientific in a mechanical point of view. This is easily illustrated by a simple diagram. Let A B represent the axis of the body; C G the transverse axis of the pelvis; C I the dislocated femur; D E the counter-extension; I H the extension and direction of the force by the pulley. N. B.—The positions here given are those directed by the most approved writers on surgery. Counter-extension is here represented as being made from the perineum of the side opposite the injured limb; for, as Professor Gibson and others very justly remark, counter-extension on the perineum of the injured side greatly irritates the adductor muscles, stimulates them to contract, and thereby confines the bone and prevents its mounting over the edge to the acetabulum, defeating the very end we are striving to attain. But *mechanically* it is the very worst point or position that can be selected, hence authors do not agree in their directions. *Physiologically* it is the best, but *mechanically* it is the worst. Let us refer to our diagram. D E being the line of counter-extension, E becomes a kind of fixed point, and, as it were, a centre, about which we describe a circle, whenever we apply force, by the pulley in the direction of the line I H. For it is evident, that force thus applied, has a tendency to bring all the movable points into one and the same straight line, with the two opposing forces—that is, to bring the points E C and I into a direct line with D and H. Consequently, the points A and C move in a circle around E, which, in reference to A and C, is a fixed point, yet it moves laterally in a right line towards C till it comes in a right line with D and H. Now the effect of this is to *abduct powerfully* the dislocated femur, and thereby "irritate the adductor muscles and stimulate them to contract," &c.; and thus, by this *indirect* action of the pulley, we defeat our own intentions—cruelly torture the patient, and perchance fracture the neck of the bone—an accident that has occurred more than once, in the hands, too, of eminent surgeons both in this country and Europe. And, as if to render this accident more certain, these same men, and others renowned for scientific attainments, have recommended a practice, which, to say the least of it, manifests the most deplorable ignorance of the science of mechanics—I mean the placing of a strap



or similar appliance, under the thigh close to the pelvis, and then attempting to lift it into the socket, while extension is being made—some have even applied another pulley laterally. In my judgment there is no reprehension too severe for such a practice, and the professor who would teach it, should be turned back to a class of sophomores to study *mechanics*, especially the power of the compound pulley.

But suppose we change our counter-extension from the sound to the injured side, the point E is nearer to a right line with D and H, and the lever of C E is shortened, and consequently the extending force acts so much more directly; but then another and worse difficulty meets us. The counter-extension band on the perineum, passes over and confines the *adductor* and rotator muscles, all of which are already in their utmost state of tension, and the moment force is applied they are made to hug the head of the bone, if possible, still more immovably, down upon the dorsum of the ilium, behind the brim or ridge of the *acetabulum;* and, in this way, so far as these muscles are concerned, our forces, both extension and counter-extension, are expended upon these muscles themselves, with little or no tendency to reduce the bone. While here, as before, the effect of the "extension is to rotate the body and pelvis around the point E as a centre—*abducting* the fractured thigh more and more as the force increases, till, by-and-by, we bring other muscles, which have been in a comparative state of rest, or very partial tenssion, into violent *tension* and resistance," viz., the *iliacus internus*, *psoas magnus* and *triceps*—and thus we array against us (unnecessarily as I shall show) the power of nearly all the muscles of the joint. And, as I shall have occasion to note hereafter, we probably always rupture the *pyryformis*, and indeed several other muscles, more or less.

These remarks and observations were originally made in reference to the use of the pulley, as "Jarvis's Adjuster" was not then known to me, but they will be found to apply, in a great measure, to the action of the latter. But it must be admitted that it is less objectionable than the pulley, for reducing dislocations, while it has many other valuable uses, to which the pulley cannot be applied, but for dislocation of the hip it is entirely unnecessary.

For the first ten years of my professional life, the subject of dislocated hip on the *dorsum ilii*, was never long absent from my thoughts. Its investigation was repeatedly laid aside, and taken up whenever anything occurred to recall it. One day, while sitting with the skeleton before me—the femur dislocated, and the head held firmly with one hand, traction and evolutions being made with the other—studying the relative condition and action of the muscles, and observing how severely some of the adductors and rotators must be stretched, it suddenly occurred to me that it would be important to know how much they would *elongate* beyond the normal length before they would rupture. "*To tire out*" and "*stretch*" muscles, was a common expression of authors when advocating the use of pulleys. But whether they intended by such language merely to convey the idea of overcoming the contraction of a muscle, when *shortened* by its *natural* action, as when its origin and insertion had been approximated, as in dislocations, or whether it

was meant to extend the muscle beyond its *normal* length, I could not ascertain—both ideas seemed to be entertained. I determined to settle the question by actual experiment. That a *contracted* or *shortened* muscle could be "tired out," and "stretched" to its normal length, was evident enough—but how much further could it be extended without rupture? And what power was necessary to thus extend it? These were the questions I proposed to myself.

I procured the fore leg of a sheep at the market; said to belong to an animal two years old and two days killed. It dissected up and separated, from all its fellows, one of the *flexors*—a ribbon-like muscle, seven inches long and one eighth inch wide, and three sixteenth inch thick—a small and elegant muscle. I left it attached to the bone at its origin, but cut off the tendon at its insertion, and wound it with fine iron wire, making a loop by which to suspend weights. Before applying any weights, the fibres had a wrinkled or puckered appearance. I marked two points, one at the origin, the other at the upper coil of the wire wound around the tendon—the distance between them five inches. I then suspended a two ounce weight in the loop of wire; the muscle *immediately elongated* a quarter of an inch—the fibres became straight and smooth; I then added one pound, no elongation; then two pounds, length the same; then four pounds, no change; then seven pounds, no alteration. Thus I continued to add weights and then measure, till I had suspended fifty-seven pounds to this small muscle, and not the least perceptible alteration in length could I discover after the first two ounces (which were sufficient to "tire it out"), till I added the fifty-eighth ponnd, when it suddenly tore in two, and the weights came to the floor. One half of the fibres first yielded at the lower end, where the wire grasped the tendon. On inspection, it appeared that I had wound the wire so high as to embrace a few of the fleshy fibres; these first gave way, while at the upper end of the muscle the other and opposite half of the muscle broke, and thus it split in the middle, its whole length. This result surprised me. Here was a muscle, slender, isolated, deprived of all support by its aponeuroses, and connections of cellular membrane to its fellows—belonging to a young animal, not remarkable for its strength of muscle, and without *vitality*, *supporting* fifty-seven pounds, without the least perceptible elongation beyond its normal length. How much power, then, would *all the large living muscles* of the hip-joint of a strong man, require, to elongate them even one eighth of an inch?

Wishing to determine how much support the fascia and cellular attachments would add to its power of resistance, I prepared a similar muscle, leaving it entire, but cutting off all the other muscles and ligaments. In other words, I divided the leg through the knee-joint, and left one muscle undivided. I suspended it as before, attaching the weights to the leg, below the insertion of the muscle to be extended. But this broke with forty-seven pounds. I attributed this to the oblique action of the weights—it being very difficult to adjust the suspended bone covered with flesh so as to keep all the parts in a direct line.

In my next experiment, I dissected up all the tendons of the muscles about the knee-joint, without dividing them, but divided all the liga-

ments, thus opening the joint. The muscles and fascia were all left in their natural state. The skin was removed, of course, before I obtained the leg, but in all respects it was similar to the others.

Before weights were suspended to it, the ends of the bones were in close contact in the joint, and would not admit the introduction of the point of a pen-knife blade. The weights were added by degrees, the ends of the bones carefully noted, and an attempt made, from time to time, to pass the point of a pen-knife blade between them—but this could not be done till 200 pounds had been added. When a few pounds had been applied, the limb began to come into a right line. The ends of the bones on the front side of the joint, that is, on the side of the extensors, were more firmly pressed together. As the weight was increased, the tendons of the *flexors* became very much strained, while those of the *extensors* became quite slack. Hence, thus far in the experiment, the whole weight was sustained by the *flexor* muscles, owing to the fact that the extensors have a greater normal or comparative length than the flexors. With a weight of 300 pounds, the bones began to separate, so as to admit the point of a pen-knife. A portion of the weight was then removed, when the bones at the joint returned and came in contact again, which seemed to prove that the muscles had elasticity and were capable of some elongation without rupture. The weights removed were re-applied, and forty pounds were added—when the bones separated about one eighth of an inch. A portion was again removed, but the bones did not return readily nor closely—the joint seemed loose. They were then carefully re-applied, when the flexor muscles yielded, suddenly throwing the whole weight on the extensors, which broke at once, seeming to offer but little resistance. Thus it appears that the flexors sustained the whole 340 pounds, which the extensors were not able to do—and that the flexors were incapable of extension or elongation, very little over *one eighth of an inch* beyond their natural length, without rupture.

It was my intention to have pursued and varied these experiments, so as to have established or refuted the conclusions to which they seemed to point, and which have since become the convictions of infallible truth in my own mind, however defective the proof and illogical the process of reasoning. But professional labors and interruptions have conspired to prevent their prosecution, and I shall leave them to be pursued and perfected by others who have more time and zeal for prosecuting such investigations.

After making the above experiments I was convinced that I had discovered the real difficulties to be overcome in reducing a dislocation of the hip on the *dorsum ilii*, viz., the extension to their utmost, or nearly so, of the *obturator externus and internus quadratus, gemini, pyriformis* and *pectineus*—and their incapability of but little more extension—and that all traction downward on the fractured limb, only increased this tension, and could do nothing towards bringing the bone into place, except at the hazard of almost certain rupture of some of these muscles, and of a fracture of the neck of the bone.

I now re-commenced my manipulations and evolutinns on the skele-

ton, to ascertain how this indirect, and not merely useless, but absolutely detrimental action of the pulley could be avoided. It was soon obvious that these muscles, instead of being extended further, could all be *relaxed*, and their natural *action* and *contraction* be made to draw the head of the bone back into its socket, and that instead of employing all *our power to overcome them*, we could actually use all *their power to aid us*, and do the very work for which we were in vain employing the compound pulley, at an immense disadvantage. And all this is done by simply carrying the injured femur in the only direction in which, in fact, it can be moved, viz., inward and over the sound one, and upward and over the abdomen, flexing it upon the pelvis till the knee is carried up as high as the *umbilicus*, and outward on a line with the same or injured side—then turning the toe outward—the heel inward—the foot across the opposite and sound limb, and carrying the knee outward and downward, and making gentle rotations of the thigh—when the head slips in easily, with a slight jerk, an audible snap—and the whole limb slides down easily and gently into its natural position beside the other. The whole operation can be performed easier, and in less time, than it can be described.

The conviction was so strong in my mind that this method was certain and practicable, that I no more doubted it then than I do now, after having demonstrated it in three several instances, two of which were within the last year. And so impatient was I to put my theory to the test, that I believe I almost wished every day (wickedly, perhaps) that some one would dislocate his hip, and give me an opportunity to reduce it. * * * * * * *

Case I.—In the spring of 1844 (I give this case from recollection, the notes which I made of it having been mislaid) I was called to see a strong, robust Irish woman, of whom they gave me the following history :—Four days previous, while out at washing, about three quarters of a mile from her own residence, she slipped and fell down a flight of steps—could not rise—and when helped up could not stand. She made a great out-cry, but as no blood was visible, she was thought to make a great "fuss for nothing." Her husband who was an intemperate carman, was sent for. He put her on his cart, drove her home three quarters of a mile ; when he arrived there, not being able to lift her, he dumped her down at the gate as he would a load of dirt. The neighboring women helped him carry her in, and place her in bed. For four days they assiduously fomented her hip, of which she complained greatly ; but it swelled considerably and became "black and blue." They now began to think the woman was "*hurted*." In this condition I found her. A single glance at the position of the knee and toe, created a strong suspicion of dislocation, but an attempt to *abduct* and rotate the limb gave great pain and determined the nature of the accident. Although the patient was suffering considerably, I was in ecstacies, and felt really obliged to her, not so much, I hope, for dislocating her hip, as for the opportunity she afforded me to reduce it. I called in Drs. M. Strong and the elder Bradley, and Mr., now Dr. Hammond, to assist me. I stated to them my determination to reduce it, if possible, without the use

of pulleys, and explained my method. Nevertheless, I had provided myself with compound pulleys, to be used in case of a failure. As the accident was of four days' standing, the hip considerably swollen and inflamed, and the patient quite muscular, I took the precaution to bleed her freely, and give her tart-antimony till nausea was produced. She was in the mean time placed on a lounge, on which a wide board was laid and covered with a folded quilt. This made a firm table about fourteen inches high, and about twenty inches wide, which gave me the opportunity of throwing the whole weight of my body on the flexed limb, if I wished, while it gave me perfect command and control over it in every way. The patient was placed on her back, and a sheet folded lengthwise thrown across the upper edges of the pelvic bones, and each end given to an assistant, for the purpose of fixing the pelvis. Placing myself on the right and injured side, I seized the knee with my left hand, and the ankle with my right; I then flexed the leg upon the thigh; at the same time, slowly carried the knee and dislocated femur, over the sound one, pressing it firmly down upon it—and upward over the pelvis, constantly pressing it close to the body, moving it upward with a circular sweep over the abdomen, till the thigh was in a right line with the right side of the body and the knee, pointing towards the right axilla. While the thigh was being carried up to this position, the bone or axis of the femur, was performing a kind of rotation on itself, whereby the toe was coming more outward and the heel more inward. In other words, as the knee went upward, the *obturator externus*, *quadratus*, &c. drew the head of the bone downward, and inward towards its socket. When the knee and thigh were in the position above indicated, the heel was strongly rotated inward, the knee drawn outward, and the foot carried across the thigh of the sound side, when the head slipped into its place, and the limb glided gently down into its natural position. In doing all this, comparatively very little force was employed, and very little pain produced, for the obvious reason, that, by this evolution, the muscles that were in a state of extreme tension and irritation by the displaced bone, were gradually relieved and relaxed, as the head of the bone descended and approximated its proper place, which it did by the action of these same extended muscles.

It will be perceived, that by this mode of operating, we make a *lever* of the shaft or bone of the femur, and a fulcrum of the edge of the pelvis—and by this means lift or dislodge the head of the bone—while the abductor musules draw it downward and inward, making it, as it were, *back into* its place, through the rent of the capsular ligament. Whereas, if it were drawn by direct force, as by the pulley, the head and neck of the bone would act as a kind of hook, and would tear away the capsular ligament, if it were only slit, and as I believe it often, if not always, does tear off the tendon of the *pyriformis*, as I shall endeavor to show presently; for the *abductor* muscles are so strained, and hold the head of the bone so firmly to the dorsum, behind the ridge of the *acetabulum*, that it is next to impossible for it to mount over this ridge and into the socket, and must therefore descend behind it, tearing everything before it—ligaments, muscles and all—and hence the im-

mense power required to reduce it by these means, and hence, too, the failures, the fractures of the neck, and the cripples, that have been made for life, by this barbarous and unscientific mode of reduction.

Case II.—On the 31st of July, 1849, Mrs. Cornelius Christie, aged about 38 years, was thrown from the top of a load of household furniture, with a small child in her arms. Mother-like, she held fast to the child, which received no harm; but falling among and upon the furniture, she had the perineum and vulva considerably lacerated, and her right hip dislocated. I saw her within one hour after the accident. Drs. Bowen, Brown and Nolton, were in attendance when I arrived in company with Dr. E. P. Langworthy. The patient was placed at once in the position as already described in case No. 1., when I proceeded, in like manner, to operate; but the wound in the perineum and vulva occasioning great pain, on the attempt to flex the thigh, I desisted and gave a full dose of morphine—not having any chloroform on hand. We waited three fourths of an hour for the effect of the morphine. I then, as already described, seized the knee with one hand—the ankle with the other—flexed the leg on the thigh—the thigh on the pelvis, carrying it *inward and over the sound limb*—then upward over the abdomen, till the thigh was nearly parallel with the right side—then rotated the heel inward, carried the foot over the sound thigh, and the knee outward, when by a gentle oscillation and rotation of the thigh, the head slipped into the socket. The whole time required in this operation did not exceed *two minutes*. The force employed, and the pain suffered, were too trifling to be named.

Case III.—On the 2d of December, 1849, early in the morning, I met Dr. E. M. Moore, Professor of Surgery in the Woodstock and Berkshire schools of medicine. He informed me he had been called up in the night to attend a case of dislocated hip. I jestingly said, "I wish you would let me show you how to reduce it." He replied as jocosely, "I understand you have got some new-fangled notions about dislocations, and I should like to see you try your skill." He desired me to explain my method. I did so, illustrating it by manipulations on the skeleton in his office. He agreed that I should make the attempt; but, that the full merit of my mode of operating should be brought out, he proposed that I should have no aid from any of the usual adjuvants, such as the warm bath, nauseating doses of antimony, bleeding, opium nor chloroform. To all this I consented.

The patient, William Fagan, was a strong mucular Irishman, 52 years of age. He was placed on a lounge, on a board covered with a folded blanket, as already described—two assistants, one on each side, steadied the pelvis. I proceeded in all respects as above stated in the two preceding cases, and in about *two or three minutes* reduced the dislocation. Drs. Moore and Cruttenden, Mr. D. Bly, and other students of Dr. M. were present.

To those who have never witnessed this mode of of operating, these statements may seem incredible; yet so simple, easy and short is it, that Dr. Moore declared that "hereafter any fool might reduce dislocation of the hip on the *dorsum ilii*." Although in the three cases given

above, I used a low table, yet I believe the floor is better, and all that is necessary. I used, too, a folded sheet thrown over the pelvis, and it held down on each side by an assistant; but even this is unnecessary, and is, moreover, always in the way, after the thigh has been flexed to a right angle with the spine or axis of the body; when the thigh has reached this position we have perfect control of the pelvis, and can fix it firmly, by pressing the thigh strongly down upon it. So simple, too, is the operation that if the patient be a female, and it were required to reduce the joint without exposing the person, it can be done under a light covering, or even under her own dress if sufficiently loosened.

On the 18th of December, just after the occurrence of the third case above narrated, Dr. Moore had a subject in process of dissection by his students, when he proposed to me that we dissect up the muscles of the hip-joints, leaving them *in situ;* dislocate the bones, and then operate on them by traction in the usual way, and also by flexion after my method, in order that we might observe the condition and action of the muscles before and during both modes of operation. We found it impossible by the power of our hands alone to force the head of the bone through the capsular ligament, till we made a slight incision into it. The head then shot through it, tearing it sufficiently to permit its passage, but then the ligament seemed to fit close around the neck of the bone. As the head passed out backward and upward, it caught the tendon of the pyriformis, *tearing it off as it passed underneath and above it,* which, if it had remained entire, would have brought its tendon, like a cord across the neck close to the head, lashing it firmly down to the dorsum of the ilium. We were at the time inclined to attribute its rupture rather to the decayed state of the subject, than to excessive distension by the dislocation. But precisely the same thing occurred in dislocating the other hip. It is true this muscle was also in the same *stale* state; and the accident may, perhaps, have happened in both instances from the like cause.

When dislocated, the head of the bone rested on the *gluteus minimus* muscle! The *gluteus medius* and *maximus* were shortened and relaxed —so, also, were the *iliacus internus*, *psoas magnus*, *adductor triceps* and *pectineus*. Till now I had supposed that this last-named muscle would have been among those that were put upon the stretch. Posteriorly the *obturator internus*, *gemelli* and *quadratus* were greatly strained; and it was apparent, that the *pyriformis*, if it had not been torn off, would have been even more so. Anteriorly, the *obturator externus* was stretched, seemingly, to its utmost, *adducting* the bone powerfully. It is this powerful muscle which so firmly fixes the limb, turns the toe and knee inward, prevents rotation and abduction, and gives such excruciating pain to the patient when any such attempts are made.

Here, then, are two sets of muscles, acting in direct antagonism to each other, and both strained to their utmost tension. One set drawing the bone backward and rotating it *outward*. The other, *adducting* and rotating it *inward*. Some might be inclined to puzzle themselves to know how these two sets of muscles, one situated before and the other behind, could both be in a state of tension, when the bone is thrown

backward toward and in the direction of the latter. The explanation is very easy. Although the head of the bone is thrown backward, yet the great *trochanter* and shaft of the bone is thrown forward and rotated inward. So that the *pyriformis*, *obturator internus*, &c., which are inserted at the root of the *trochanter*, are necessarily elongated, while the anterior *obturator externus* runs backward behind and around the bone, to be inserted at the root of the trochanter, in order to rotate the limb outward, it must also be strained just in proportion as the limb is rolled inward, and the trochanter is carried upward. The *quadratus* is stretched for the same reason, viz., its point of insertion is carried upward and inward.

After having carefully noted the relative position of the bone and muscles, we made traction on the femur, downward and inward, over the sound limb, as we are directed by the most approved authors, but the moment the attempt was made, the muscles already named as being in a state of tension, became more tense, and bound the head of the bone more firmly down on the *dorsum;* and although all the muscles about the joint were separated from each other—were loose, without vitality and almost in a state of decomposition—yet it was with very great difficulty that we could bring the head of the bone down; and when we did so, we carried away part of the capsular ligament, and if the *pyriformis* had not been already torn, it is very probable that it would have been torn now. But when *adducted, flexed, and carried the limb up over the pelvis*, as has been stated, the reduction was effected with the utmost ease. We varied and repeated our experiments on both joints, as often as the subject would admit, and always with the same results. I was here enabled to correct one error which I had committed in operating. If we carried the knee above the *umbilicus*, and pressed the thigh down close to the body, on a line with the side, the knee pointing towards the axilla, as I had always done, we brought the great tendon of the *gluteus maximus* into strong tension, which would compress the great trochanter so hard, that it prevented the head from mounting over the edge of the acetabulum. The reduction was effected much easier by carrying the knee and thigh about as high as the umbilicus, then abducting and rotating the thigh.

To Dr. Moore, who so kindly offered me the opportunity to demonstrate the correctness of both my theory and practice, I am much indebted and obliged.

From the foregoing facts and observations, gentlemen, I deduce the following propositions:—

1. The chief impediment in the reduction of dislocations, is the indirect action of the muscles that are put upon the *stretch* by the mal-position of the dislocated bone, and not by the *contraction* of the muscles that are shortened.

2. That muscles are capable of so little extension, without hazard of rupture, beyond their normal length, that no attempt should be made to stretch them further, in order to reduce a dislocation, if it can possibly be avoided.

3. The general rule for reducing all luxations should be that the

limb or bone should be carried, moved, flexed or drawn, in that direction which will relax the distended muscles.

4. Dislocation of the hip on the *dorsum ilii*, an accident so serious to the patient, and so formidable to all surgeons, is reduced with the greatest ease, in a few minutes, without much pain, without an assistant, without pulleys, without "Jarvis's Adjuster," or any other mechanical means, simply by flexing the leg upon the thigh, carrying the thigh over the sound one, upward over the pelvis, as high as the umbilicus, and then by *abducting* and rotating it.

SUIT FOR MAL-PRACTICE.

To the Editor of the Boston Medical and Surgical Journal.

Dear Sir,—A case of alleged mal-practice was tried at the last Circuit in this county, between Morgan Stewart and G. W. Edwards, M.D., which I think ought to be laid before the professional public. Stewart—who is an intemperate man, aged 34 years—had a compound fracture of the tibia. Dr. George W. Edwards, of Clay, in this county, had his case under management. He reduced it, and applied the appropriate splints and bandages. Some three or four weeks afterwards, a surgeon from this place was called, who let the case remain in the situation he found it.

In June, 1851, the plaintiff brought a suit against Dr. Edwards, and it was tried at the Circuit, and a verdict of $500, with costs, was obtained against Dr. Edwards.

Believing, as I do, that this case was one of peculiar hardship to Dr. Edwards, and that the verdict was one of those which ought not to have been given, I am induced to give a summary of the testimony in the case, that the profession generally may judge of its merits.

The plaintiff, Mr. Morgan Stewart, of the town of Clay, in this county, about 35 years of age, said to be of good constitution, but somewhat addicted to the use of ardent spirits, was kicked by a horse some time about the 9th of October, 1850. The result was a compound fracture of the tibia, but no protrusion of the bone took place, though he jumped from the carriage after the injury. Dr. Edwards was called, who reduced the fracture and applied the appropriate dressings. A great amount of swelling and inflammation followed, and some sloughing of the integuments over the seat of fracture. In a few days he sent to this city and procured an apparatus, and applied it, and all went on as well as could be expected until about six weeks, when a lump was observed on the outside of the leg, which was found to be the head of the fibula a little out of place. The tibia was a little crooked also, but union had taken place, and it was judged best, in consultation with a surgeon from this city, not to interfere with it.

In February last, the plaintiff commenced a suit for damages, and it was tried, as before observed, at the Circuit Court in June, and $500 damages awarded. The testimony which the plaintiff introduced showed no want of attention on the part of the defendant, but that he visited

him as often as was necessary, and also called in counsel, after the head of the fibula became prominent. There was but one medical witness, on the part of the plaintiff, who found any fault with the apparatus and dressings used, and he gave such confused and contradictory evidence that I should have supposed a jury would not have regarded it as worth much. The dislocation of the upper head of the fibula was made a strong point by the plaintiff's counsel against defendant; and the defendant, in turn, denied its being dislocated at the time of injury, but subsequently. The medical witnesses all testified to the infrequency of this form of dislocation, there being but few cases on record. Sir A. Cooper never met with but one case of the kind, and other surgeons of eminence were quoted as to its extreme rarity. Not one of the medical witnesses on the trial had ever met with a case, and they all agreed that if the fibula was not fractured in this case, reducing the fractured tibia must necessarily reduce the dislocation of the head of the fibula. This appears to me a most rational conclusion; for, from the strong attachment of the lower portion of the fibula to the tibia, if extension was made to bring the fractured ends of the tibia in apposition, the reduction must, as a matter of necessity, take place. Now if this was the case, how came the fibula dislocated? It is easy, in my opinion to account for it. There was some slight displacement of the ends of the fractured tibia towards the fibula, and about the time union was taking place this bending occurred, and a slight shortening taking place, the head of the fibula not having become sufficiently strong to resist the pressure, was pushed away from its natural situation—and hence the mischief. The fibula was but slightly displaced, after all; not more than two-thirds the diameter of its head outwards, and slightly backwards and upwards, and after firm adhesion has taken place will most probably be a serviceable leg. In fact, since the trial, he has thrown away his crutches and walks much better than before. This is generally the case with such patients. I have known many a poor cripple, who could not walk without the aid of crutches, on the termination of a trial, get the use of his limb in a most surprising and miraculous manner! Medical men are so familiar with such instances, that it ceases to be a wonder to them, however inexplicable it may be to others.

The frequency of suits for mal-practice is having a most decidedly pernicious influence on our profession; and if something is not done for the protection of the rights of physicians, it must re-act upon the community in a way that it will finally restore to us our rights and privileges, or the public will be the sufferers. I know several good surgeons who will not touch a case of fracture, and others who will only do so under a guarranty that, whatever may be the termination of the case, they shall be protected. If it was only the ignorant and unskilful men who were the sufferers, it would be a relief to the profession; but it is not so. In nine cases out of ten it is some well-educated and eminent man. And why it is thus, is perfectly obvious. Out of the great number and variety of cases which he meets with, some must inevitably prove unfortunate. His eminence in the profession has raised up enemies, who trumpet his unfortunate cases, and too frequently stir up a suit. What renders it

more especially provoking, is, that those who are irresponsible and never think of paying the surgeon, are the ones who generally bring such suits. If you are acquitted, the costs which you are obliged to pay in counsel fees and for witnesses, is no small item; and the perplexity, anxiety and annoyance is beyond measure the most troublesome of any of the surgeon's responsibilities. There is ever to be found in the community some one who is ready to find fault with the practice of others; and such ones will be willing to give their testimony against the unfortunate surgeon; and if the treatment has been such as Sir Astley Cooper or Dupuytreyn has approved, yet he knows a better way, and one *he*, at least, has used with great success; and in many instances the jury, if their sympathies get enlisted, will make his testimony an excuse for finding a verdict.

Respectfully yours, A. B. SHIPMAN.

Syracuse, N. Y., August, 1851.

P. S.—I understand that this case is to be reported by the Supreme Court. If it is, I will send you a copy. A. B. S.

DISLOCATION AND FRACTURE OF THE VERTEBRA.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—In the Journal of June 4th, I noticed an article from Dr. J. H. Morse, of Lawrence, representing a dislocation and fracture of the spine at the seventh or eighth dorsal vertebra.

From the description given of this case by Dr. Morse, there seems to be something rather novel, and to me truly surprising. From the limited reading I have had, and the cases of dislocation of the spine which I have seen (only two), I had supposed that injuries of this nature were very serious, and in the end fatal. I have always considered it impossible to reduce a dislocation of the dorsal portion of the spine without dissecting down to the bones and cutting off the transverse processes of the vertebra; nor do I find on record any case that has been treated successfully.

In this case it appears that, with the aid of Dr. Jarvis's adjuster, there was no difficulty in readily reducing the dislocation, and putting the bones in their natural position, that in a few days the man was able to raise himself up, and soon walk about.

Dr. Morse tells us that there was not complete paralysis. Now I cannot conceive how there can be a dislocation of the dorsal vertebra without producing a sufficient compression on the spinal marrow to cause total paralysis of the parts below the injury, even if there is a fracture of the body of the vertebra; and after being crushed down with force sufficient to dislocate and fracture the spinal column, how a man should so far recover in seventeen days as to raise himself up in bed, and walk out in twenty-four days, is to me quite unaccountable.

After perusing Dr. Morse's case, the following questions have presented themselves to my mind, which I hope you, or some of your correspondents, will do me the favor to answer through the Journal.

1st. Has there ever been, or can there be, a dislocation of the dorsal vertebra without producing total paralysis of the parts below the injury?

2d. Would a fracture of the body of the vertebra, in connection with dislocation, render the case *less* formidable.

3d. Would a fracture of the body of a vertebra, in connection with dislocation, recover in seventeen days so as to sustain the weight of the body, or sooner than other fractured bones?

The object of this communication is to solicit information in relation to injuiries of this nature. Any of the readers of this Journal who will give any information, or their views and experience on the subject, will much oblige— Yours, &c., CORNEA.

Lawrence, Mass., Aug. 4, 1851.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, AUGUST 13, 1851.

Quarantine Congress.—"Dr. Sutherland, the Medical Inspector of the General Board of Health, has been appointed to attend the Medical Congress to be held at Paris, on the subject of quarantine, by the medical authorities of the several European Governments interested in the question."

The above paragraph is taken from the London Times of July 15th. If there is any one act demanded of commercial nations in their combined capacity, more than another, for advancing civilization, it is a declaration of uncompromising hostility to the rascally system of quarantines now in force in every port on the Mediterranean. Even on land, by some of these regulations, a solitary traveller on a camel, crossing the lonely Desert of Arabia, is compelled to sleep out a quarantine of five days under a tent on a sand hill, before he is allowed to proceed. To pretend that a preservation of the public health is alone contemplated by the severe port regulations in regard to the landing of passengers in Marseilles, Leghorn, Genoa, Civita Vecchia, Naples, Messina, Palermo, Venice, Ancona, Malta, Alexandria, Beyroot, Cyprus, Rhodes, Smyrna, Constantinople, Piræus and Syra in Greece, Zandt, Corfu, Trieste, and some forty other places with which a commercial intercourse is feebly, and often injuriously maintained by foreign merchants, is a falsehood. More than half the rigorous quarantines in Italy, and throughout the Turkish empire, are maintained, in their present infamous form, through the trickery of subtle Italian physicians, who would willingly see the world depopulated, if they could get a profitable salary by it. They are meddling, ignorant, double-faced men, who are apparently bent on ruining commerce, and limiting the intercourse of nations to their individual permission. England is as deeply in the mire as the Papal and Neapolitan governments, in regard to Malta and the Ionian Islands. How the minister of foreign affairs could play the hypocrite, without blushing to confusion, in sanctioning the movement of the General Board of Health, by sending a representative to Paris, is quite unaccountable to one traveller at least. Money in these cases makes all contagious and infectious distempers fly off at a tangent; it puts all medication into the back ground at once.

Instead of being a subject of legislation by a few local boards of health,

not five members in a hundred of which, either in Europe or America, know any thing about the nature of plague, smallpox or fevers, the Congress of the United States and the Parliament of England should unite in breaking up and breaking down these cordons of ignorance. The only true and just form of a quarantine, is one of observation. Stop the sick, if necessary; but never detain a person or a bale of goods a moment, without a sufficient cause. That should be determined by a man of high medical attainments and sound discretion, and not be left, as it now is, to the whim or caprice of those who could not gain admission to any respectable medical association in Christendom. But the abominable corruptions of the quarantine administration in many a port where travellers wend their way, independently of the downright wickedness of the more enlightened sustainers of it—the French and English—call loudly for a redress of grievances. Bad as our quarantine regulations are in New York and some other domestic ports—yielding income, unrighteously filched from the pockets of the merchants, without conferring the smallest good upon the community—they are infinitely superior to those on the borders of the Mediterranean Sea.

Re-appearance of Cholera.—It is a painful thought that this scourge is again manifesting an uncontrolled activity at many places in the West, where there have been severe afflictions in its former visitations. It is to be feared that physicians are little wiser in regard to the laws that govern malignant cholera, or the treatment which actually saves a patient, than they were ten years ago. It is too late—after the melancholy destruction of human beings that have fallen before it in every country and climate, and which are at this moment dropping into premature graves in alarming numbers—to assert that cholera can be treated with the certainty of other epidemic disorders. Yet all this should not deter the humblest practitioner from the most thorough investigation. What a field for discovery is open to competitors!

Professional Success.—At the graduation of the medical class at Evansville, Indiana, an address, of an elevated character, was delivered by Conrad Baker, Esq. He points out specifically the right way and the wrong one, for a medical practitioner, by simply showing that courtesy, punctuality, accuracy and despatch, are the powers that ensure success. There are those who are perpetually snarling or sneering at some one in the profession whom they, for some undefinable cause, dislike, without being precisely able to define why or wherefore. It is enough that they are real or imaginary obstacles to their own full success. Such physicians lead a wretched life, since it is impossible for them ever to be comfortable, or hold the position in society which they are determined to have, by thus fighting through life. Another, disregarding the business habits of every one else, and being stubbornly bent on making the world conform to his individual views of the way, the manner and the time for doing things, will surely find himself neglected—while he comforts himself with the false idea that he has been *unfortunate*. Accuracy is an essential element of success, the true value of which is so uniformly admitted, that it is quite unnecessary to do more than refer to it. But the last requisite to make a successful physician, is *despatch*. Incessant activity, without being in a reprehensible haste, is also indispensable to success. Some practitioners, of

eminent qualifications, are so insufferably fatiguing to their patients by the extreme minuteness of their questions, and the intolerable length of their visits, all with the very best of intentions—that those who would like to be their patrons are obliged to cut loose from them. A practitioner is supposed to study at home; and when introduced to the sick-room, the ability to bring his knowledge to bear upon the case at once, is the secret of gaining and keeping business. It will not answer to examine and percuss, listen to arterial pulsations, and split hairs, till the patient becomes impatient for the remedy. Despatch is a virtue in a physician. Mr. Baker proves himself to be a common-sense philosopher. If he practises, as a lawyer, upon the precepts forcibly shown to be the true way in medicine, he is unquestionably both patronized and distinguished.

Excess of Females in Great Britain.—"In 1841, there were 493,303 more females than males in Great Britain. In 1851, the excess is 550,157. In 1841, the excess of females in the metropolis was 124,367. In 1851, it is 154,429—an increase greater than the whole increase of population would lead one to expect. This growing disproportion of the sexes has lately attracted the attention of philanthropists, and has suggested the scheme for conveying such women as are qualified for it to colonies, where the disproportion is the other way."

It is the opinion of those travellers on the continent who have given attention to the subject, that there is a very considerable excess of females over the whole of Europe. The draining of the men from the rural districts for the armies, unquestionably leaves a majority of the other sex in some places; yet, under any aspect, there are evidently more females than males. Whenever a reliable census is taken of the continental nations, this opinion will probably be verified. In Asia—certainly that portion of it with which we are personally conversant from recent explorations—there seems to be a very considerable excess of female population. In passing through villages in Asia Minor, there invariably appears to be a majority of females out of doors—while the immemorial custom of the country is to confine very large numbers of the higher circles to apartments, where they are only known to their proprietors and guardian eunuchs. In the United States there are marked extremes in respect to the proportion of the sexes. The old Atlantic cities and towns are blessed in the ratio of two to one, if not more in some of the maratime regions, of females to the males; while in the Western new settlements, among the gold hunters in California, scarcely one in a hundred of the men can find a wife, for the melancholy reason that there are none to be had.

Microscopist.—Joseph H. Wythes, M.D., is the author of a small, compact 12 mo. on the "Use of the Microscope for Physicians, Students and Lovers of Natural Science," with engravings on wood, illustrative of the appearance of certain objects, viewed by that beautiful instrument. Independently of the amusement derived from a contemplation of the minute organizations which the unassisted eye could not perceive, the light that has been derived by the aid of this curious combination of lenses, in regard to the minute structure of the tissues, the real condition of the fluids in a living body, and the morbid conditions brought about by the invasion of disease, is invaluable. This treatise not only gives directions for using the microscope satisfactorily, but shows how it is to be kept in order.

Mounting and preserving specimens, both transparent and opaque; the composition for protecting them, &c. are considered. The cell doctrine of physiologists, accompanied by illustrations; examination of injured structures; minute injections; examinations of urinary deposits; polarized light, and a variety of miscellaneous suggestions, are among the subjects discussed, each and all of which are individually interesting and instructive topics, and the mention of them will give a general idea of the efforts of the author. Messrs. Lindsay & Blakiston, the Philadelphia publishers, have brought out the book in a commendable style of compactness and typographical neatness. It may be found in Boston, at Ticknor & Co.'s, Washington street.

New State Insane Asylum.—We understand that the Commissioners appointed by the Governor and Counsel, to select the site and erect a new Insane Asylum—for which $100,000 were appropriated at the last legislature—will give the people of the different parts of the State a hearing on the question, which location would be more conducive to the public interest, *East or West of Worcester.* The Commissioners are Ex-Governor Briggs, of Pittsfield; Dr. Graves, of Lowell; and Gen. Tompson of New Bedford. For the purpose above stated, they will meet at Pittsfield on the 21st of August, at Northampton on the 22d, at Middleboro' Four Corners on the 26th, and at Taunton on the 27th. After these deliberations with the people of different sections of the State, it is understood that they will will proceed to select the particular site.

Progress of Medicine.—An introductory lecture to the Spring Course of the Philadelphia College of Medicine, by James Bryan, M.D., was recently received, though delivered in March last. Dr. Bryan is a ready writer, and his zeal is not surpassed by that of any teacher in the United States. He has proceeded very methodically in the discourse by dividing the last fifty years into four epochs, and has given the historical facts essential to his purpose, without becoming tedious. He is a fortunate writer who knows precisely where to stop. We are struck with the extent of Dr. B's reading, no less than his happy faculty in condensing a period, so extraordinary in medical history, within the compass of twenty-eight octavo pages. If we were asked to point out the best account of the progress of medicine and surgery, for the past half century, we should say this was the one.

Rush Medical College.—This institution, at Chicago, is working on the cheap principle; giving a full course of lectures, by six professors, for *thirty-five* dollars. For graduation, the fee is twenty, and at the last session, thirty students received the degree of M.D. Some of the colleges are dissatisfied with this new measure, the cheapening plan, from an impression that it will lessen the income of schools, besides lowering the dignity of the profession. There is some reason in both suggestions, but as the Chicago professors seem disposed to give the plan a thorough trial, and as the result will be known by way of precedent or warning to all other schools, it is not worth while at present to waste arguments or to go to war about it. An elevating influence is certainly needed in the ranks now, more than ever.

Unreliable Obstetrical Statistics.—A small pamphlet has been addressed to the members of the American Medical Association, by Dr. F. M. Robertson, of Charleston, S. C., in explanation of his motive for moving a recommittment of the report by the Chairman of the Committee on Obstetrics, at the late meeting of the Association. The object of his motion was to give the chairman an opportunity to strike out the statistics of Dr. Ramsay, of Georgia, which had been incorporated into the paper, and which as was asserted, "were not reliable." Very naturally, Dr. Ramsay was roused to a sense of injury on learning what kind of estimation his account of his own experience was held by the assembled medical wisdom of the Union. Had he been present to meet any insinuation or charge of this character, possibly the whole matter would have taken quite a different turn. But as it was, the quotations from Dr. Ramsay were erased as unreliable authority. Dr. Ramsay immediately wrote to Dr. De Saussure one of the secretaries, making certain propositions in regard to an adjustmont of the difficulty existing between him and Dr. Robertson. Dr. R. maintains that he has no personal ill will towards Dr. Ramsay—he merely contemplated the honor of the profession and the character of the publications emanating from the high body of which he was a member, and which we all, in common, desire should possess an unsullied reputation. Here the business now rests. How these two gentlemen can be made to forget and forgive, remains to be determined, since, although a public matter, it is also a personal one.

Medical Miscellany.—Virginia tobacco yields the largest proportion of nicotine; from twenty pounds were extracted four hundred *grammes* of the poison; a gramme is equal to 15-444 grains troy. The Maryland leaf affords about a third of that quantity. Nicotine is nearly as powerful and rapid as prussic acid with the animal economy. Five or six drops applied to the tongue of a dog, killed it in ten minutes. The convulsive motion was slight.—The Pictou (N. S.) Chronicle mentions the death, at East River, of Mr. John Chisholm, of dropsy. He had been tapped 228 times, by which the enormous quantity of 358 gallons of water were taken from his body.—The company that has been boring for salt water at Pomeroy, have succeeded in obtaining, at the depth of one thousand feet, an abundant stream of great strength, which flows over the top of the well. They intend boring two other wells in the immediate vicinity of the first, and it is expected the three will furnish water sufficient for the manufacture of a hundred and fifty barrels of salt in twenty-four hours.—Captain Andrew Brock, and his twin sister, Mrs. Brooks, for many years resident of the neighboring island of Tuckernuck, celebrated the anniversary of their birth day, a few days since, both of them being in the enjoyment of their usual good health. Their united ages amount to one hundred and fifty-eight years.

Deaths in Boston—for the week ending Saturday noon, Aug. 9th, 101.—Males, 47—females, 54. Accidental, 3—asthma, 1—apoplexy, 1—anemia, 1—disease of bowels, 9—disease of brain, 1—disease of bladder, 1—consumption, 9—convulsions, 2—cholera infantum, 4—cholera morbus, 1—croup, 1——dysentery, 7—diarrhœa, 3—dropsy, 3—dropsy of the brain, 10—drowned, 1—erysipelas, 1—epilepsy, 1—typhus fever, 1—typhoid fever, 1—scarlet fever, 2—lung fever, 1—fracture, 1—gangrene, 1—disease of the heart, 1—inflamation, 1—infantile, 14—inflamation of lungs, 2—congestion of lungs, 1—marasmus, 1—measles, 2—old age, 1—palsy, 1—poison, 1—smallpox, 1—teething, 4—tumor, 1—unknown, 2—worms, 1.

Under 5 years, 55—between 5 and 20 years, 4—between 20 and 40 years, 26—between 40 and 60 years, 9—over 60 years, 7. Americans, 45; foreigners and children of foreigners, 56.

The above includes 11 deaths at the City Institutions.

MEDICAL COLLEGE OF OHIO. *Session of 1851-52.*—The *Thirty-Second* Annual Session of this Institution will open on the 15th of October next, and close on the last of February, under the following arrangements.

H. W. BAXLEY, M.D., Professor of Anatomy.
JOHN LOCKE, M.D., Prof. of Chemistry and Pharmacy.
L. M. LAWSON, M.D., Prof. of Physiology and Pathology.
T. O. EDWARDS, M.D., Prof. of Materia Medica and Therapeutics, and Medical Jurisprudence.
R. D. MUSSEY, M.D., Prof. of Surgery.
LANDON C. RIVES, M.D., Prof. of Obstetrics and the Diseases of Women and Children.
JOHN BELL, M.D., Prof. of Theory and Practice of Medicine.
JOHN DAVIS, M.D., Demonstrator of Anatomy.

The following branches will be included in the Course:—Anatomy, Chemistry, Pharmacy, Physiology, Pathology, Materia Medica, Therapeutics, Medical Jurisprudence, Medical Botany, Surgery, Obstetrics, Diseases of Females, Diseases of Children, Practical Medicine, and Clinical Medicine and Surgery.

The Dissecting Rooms will be opened for classes on the 1st of October.

Clinical Lectures on Medicine and Surgery will be delivered at the Commercial Hospital three times a week.

The Medical College of Ohio affords the most ample opportunities for the prosecution of Practical Anatomy and Clinical Instructions in Medicine and Surgery.

Preliminary Lectures.—A Course of Lectures will be delivered by the Faculty (free of charge), commencing on the 1st of October; also, Clinical Lectures at the Commercial Hospital.

Fees.—For a full Course of Lectures, $105. Matriculation and Library Ticket, $5. Dissecting Ticket, $10. Graduation Fee, $25. Hospital Ticket, $5.

Board (including the expenses of room, fuel and light) can be obtained at from $2 to $3 per week.

A new College Edifice will be erected during the ensuing summer.

Further information may be obtained by addressing the Dean.

L. M. LAWSON, M.D., *Dean of the Faculty*,
South side of 6th st., between Walnut and Vine.
Cincinnati, July, 1851. jy9—tO

SURGICAL INSTRUMENTS.—PHILBRICK & TRAFTON have for sale Pocket Cases of Instruments, Pocket Cases of Phials for carrying medicines, Cupping Cases, Dissecting Cases, Breast Pumps in cases, do. Gum Elastic, Nurse Bottles, Nipple Shells, Breast Pipes; Catheters, male and female, single and double, of silver and gum elastic; Bougies for urethra and rectum; Syringes, self and common; Maw's self-injecting Instruments; Pessaries; Hutchinson's Aperitive Fountain; Speculums, vaginal and rectal; Pill Syringes, for administering solids by the rectum; Stomach Pumps; Stomach Tubes, to be used with a common syringe; Glass Inhalers, for administering medicated vapors; Ramadge's Inhaling Tubes; Teeth Forceps, Scarificators, Crain's Supporters, Shoulder Braces and Suspensory Bandages of every description.
Nov. 13.

FRESH AND GENUINE DRUGS AND MEDICINES of a superior quality, carefully prepared for physicians' use, and for sale on the most favorable terms, at 13 Tremont Row, Boston, by
JOSEPH BURNETT,
Feb. 10—tf (*Successor to T. Metcalf.*

PURE CHLOROFORM.—For sale by JOSEPH BURNETT, Apothecary, *No. 33 Tremont Row.*
Jan. 5—tf

DENTAL REMOVAL.—DR. J. H. SMILIE, having removed to No. 51-2 Tremont Row, is now prepared to perform every operation in Dentistry required for the health and preservation of the Teeth, and trusts that his former success will insure a continuance of public patronage.
Opp. the head of Brattle st. Boston. jy16—3m

MATICO constantly on hand, and for sale by PHILBRICK & TRAFTON. Nov. 6.

VACCINE VIRUS.—Physicians in any section of the United States, can procure ten quills charged with *Pure Vaccine Virus* by return of mail, on addressing the Editor of the Boston Medical and Surgical Journal, enclosing one dollar, *post paid*, without which no letter will be taken from the office. Feb.8.

COLLEGE OF PHYSICIANS AND SURGEONS OF THE UNIVERSITY OF THE STATE OF NEW YORK.—The Forty-fifth Session of the College will be commenced on Monday, 13th October, 1851, and continued till March 11th, 1852 (commencement day).

ALEXANDER H. STEVENS, M.D., LL.D., President of the College and Emeritus Professor of Clinical Surgery.
VALENTINE MOTT, M.D., LL.D., Emeritus Professor of Operative Surgery and Surgical Anatomy.
JOSEPH M. SMITH, M.D., Professor of the Theory and Practice of Medicine and Clinical Medicine.
JOHN TORREY, M.D., LL.D., Professor of Botany and Chemistry.
ROBERT WATTS, M.D., Professor of Anatomy.
WILLARD PARKER, M.D., Professor of the Principles and Practice of Surgery.
CHANDLER R. GILMAN M.D., Professor of Obstetrics and the Diseases of Women and Children.
ALONZO CLARK, M.D., Professor of Physiology and Pathology (including Microscopy).
ELISHA BARTLETT, M.D., Lecturer on Materia Medica and Medical Jurisprudence.
CHARLES E. ISAACS, M.D., Demonstrator of Anatomy.

Fees.—Matriculation fee, $5; fees for the full course of Lectures, $105; Demonstrator's Ticket, $5; Graduation fee, $25; Board, average $3 per week.

Clinical Instruction is given at the New York Hospital daily, by the Medical Officers (Prof. Smith being one of them), fee $8 per annum; at the Bellevue Hospital twice a week, without fee (Profs. Parker and Clark belonging to the Medical Staff); at the Eye Infirmary, without fee; and upwards of 1000 patients are annually exhibited to the class in the College Clinique. Obstetrical cases and subjects for dissection are abundantly furnished through the respective departments.

The annual commencement is held at the close of the session; there is also a semi-annual Examination on the second Tuesday of September. The prerequisites for Graduation are—21 years of age, three years of study, including two full courses of Lectures, the *last* of which must have been attended in this College, and the presentation of a Thesis on some subject connected with medical science.

In addition to the regular Course, and not interfering with it, a Course of Lectures will be commenced on Monday, 29th September, and continued until the 13th October. This course will be *free*.

R. WATTS, M.D.,
Col. of Phys. & Surgs. } *Sec'y to the Faculty.*
67 *Crosby St. N. Y.* } Jy 16—ewt8t—eowtN1.

UNIVERSITY OF THE STATE OF MISSOURI.—The Twelfth Session of this University will open on the 16th October next.

Medical Department.

JOSEPH N. MCDOWELL, M.D., Professor of the Principles and Practice of Surgery, and of Clinical Surgery.
RICHARD F. BARRET, M.D., Prof. of Physiology and of Materia Medica.
JOHN B. JOHNSON, M.D., Prof. of Clinical Medicine and Pathological Anatomy.
ABNER HOPTON, M.D., Prof. of Chemistry and Medical Jurisprudence.
S. GRATZ MOSES, M.D., Prof. of Obstetrics and the Diseases of Women and Children.
JOSEPH N. MCDOWELL, M.D., Prof. of General, Descriptive and Surgical Anatomy
JOHN S. MOORE, M.D., Prof. of the Principles and Practice of Medicine.
JOHN HODGEN, M.D., Adjunct Prof. of Surgery and Demonstrator of Anatomy.
L. T. PIM, M.D., Adjunct Prof. of Anatomy, and Prosector.
PETER MASON, Curator.
HENRY WILLIAMS, Janitor.

Aggregate cost of Tickets, $105. Graduation fee, $20. Matriculation fee, $5. Good boarding from $2 to $3 per week.

For further information address the Dean of the Faculty, or call upon him at his office, No. 44 Fourth street, under the Planter's House.

JOHN S. MOORE, M.D., *Dean.*
St. Louis, May 10, 1851 may 21—tL

MATICO.—A fresh supply just received and for sale by JOSEPH BURNETT, *No. 33 Tremont Row.* Mch 17—tf

PREPARATIONS OF SILVER.—Nitrate in Crystals, Oxide, Iodide and Chloride, manufactured and for sale at 160 Washington street, Boston, by PHILBRICK & TRAFTON,
Nov. 13. *Chemists.*